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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,512	12/04/2003	Tapesh Yadav	037768-0107	7182
22428	7590	03/24/2006	EXAMINER	
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			VANOY, TIMOTHY C	
			ART UNIT	PAPER NUMBER
			1754	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

CM

<b>Office Action Summary</b>	<b>Application No.</b> 10/726,512	<b>Applicant(s)</b> YADAV, TAPESH	
	<b>Examiner</b> Timothy C. Vanoy	<b>Art Unit</b> 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 and 13-20 is/are allowed.
- 6) ☒ Claim(s) 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>June 30, 2005</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Upon further consideration, the requirement for restriction between claims 1-11 and 13-20 (group I) and claim 12 (group II) is withdrawn. All of claims 1-20 will be examined and acted on their merits. The applicants' remarks set forth in the election filed on Mar. 14, 2006 have been considered.

### ***Specification***

The abstract is objected to because it does not provide any specific examples of the compositions or their applications in technology.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The person having ordinary skill in the art has the capability of understanding the scientific and engineering principles applicable to the claimed invention. The references of record in this application reasonably reflect this level of skill.

Claim 12 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over pg. 167 in the reference titled "Introduction to Modern Inorganic Chemistry" 4<sup>th</sup> Ed, by Mackay et al.

Pg 167, col. 1, 6<sup>th</sup> full paragraph and the paragraph bridging columns 1 and 2 on pg. 167 in the Mackay reference disclose a variety of products incorporating rare earth compounds. For example, La or Gd oxide may be used in a support medium. Neodymium may be held in glass or in yttrium aluminum garnet, which is useful in a neodymium laser. Yttrium and gadolinium may be used in garnet oxides and are used in bubble memory devices for memory storage, microwave components and other magnetic applications. These products (i. e. the microwave components, memory storage devices, neodymium lasers, support mediums, etc.) which contain rare earth compounds are not seen to be unobviously distinct from the product of applicant's claim 12.

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The difference between the applicant's claim 12 and the Mackay reference is that applicant's claim 12 is "linked" to applicant's claim 1 and, therefore, includes all the limitations of preparing the rare earth compound set forth in applicant's claim 1 (whereas pg. 167, col. 1, 6<sup>th</sup> full paragraph and the paragraph bridging columns 1 and 2 in the Mackay reference does not expressly set forth the details of preparing the rare earth compounds), however it is submitted that this difference would have been obvious to one of ordinary skill in the art at the time the invention was made because the "composition of matter" set forth in applicant's claim 12 is not seen to be any different from the rare earth compounds used to make the products described in the Mackay reference. A different method for making the same composition of matter is not seen to make a patentable distinction between the compositions of matter, per se: please note that the courts have already determined that "If the product in a product-by-process claim is the same as of is obvious from a product of the prior art, the claim is unpatentable even though the product was made by a different process." as described in *In re Thorpe* 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) discussed in section 2113 in the MPEP 8<sup>th</sup> Ed., Rev. 3, Aug. 2005. Since the "composition of matter" set forth in applicant's claim 12 is not seen to be any different from the rare earth compounds used to make the products described in the Mackay reference, then the claim is rejected under 35USC102 – as well as 35USC103.

Claims 1-11 and 13-20 have not been rejected under either 35USC102 or 35USC103 because none of the references of record teach or suggest the claimed

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reaction between a first composition comprising rare earth element-containing nanoparticles with a substance, as set forth in at least applicant's claim 1.

The following references, which are indicative of the state of the art, are made of record:

“Progress in the Science and Technology of the Rare Earths” Vol. 1 edited by LeRoy Eyring, pgs. 416-423 disclosing various uses of rare earth metals and salts;

U. S. Patent App'n. Pub. US 2004/0023785 A1 disclosing a capacitor produced with a ceramic mass;

U. S. Patent 6,316,377 B1 disclosing rare earth fluoride nanoparticles and a hydrothermal method for forming the nanoparticles, and

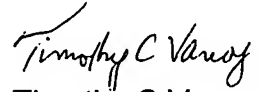
U. S. Patent 5,077,240 disclosing a neodymium-containing glass.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy C. Vanoy whose telephone number is 571-272-8158. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Timothy C Vanoy  
Patent Examiner  
Art Unit 1754

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